UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,814	08/02/2001	Yukihiko Ichikawa	018775-836	4284

7590 02/22/2007		EXAMINER	
Platon N. Mandros		MILIA, MARK R	
BURNS, DOANE, SWECKER & MATHIS, L.L.P.			
P.O. Box 1404		ART UNIT	PAPER NUMBER
Alexandria, VA 22313-1404		2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/919,814	ICHIKAWA ET AL.
	Examiner	Art Unit	
	Mark R. Milia	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 December 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21 and 28</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21 and 28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

12/22/06 has been entered. Currently, claims 1-21 and 28 are pending.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 8 and 15 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter. Claims 8 and 15 are drawn to functional

descriptive material NOT claimed as residing on a computer readable medium. MPEP

2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are
descriptive material per se and are not statutory because they are not capable of
causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 8 and 15, while defining a recordable medium, do not define a "computer-readable medium" and is thus non-statutory for that reasons. A recordable medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Response to Arguments

3.   Applicant's arguments regarding claims 1-8, filed 12/22/06 have been fully considered but they are not persuasive.

The applicant asserts that neither the reference of Miyaza (US 5825942) nor Tanioka (US 2004/0114804) discloses a selector that selects a font data of a particular point size based on a size of a region of the character image in the magnified or un-magnified image data. The examiner respectfully disagrees as the combination of Miyaza and Tanioka does disclose such a feature. Particularly, Miyaza discloses

selecting font data of a particular point size based on a number of different criteria, such as magnification/reduction amount and readability (see column 65 lines 53-58 and column 66 lines 8-29). Tanioka discloses selecting a point size of a font based on a size of a region of the character image in the magnified image data (see paragraphs 27-29). Particularly, Tanioka discloses detecting a width of the print media, a resolution, the number of characters, and a total number of pixels. A starting point size is determined because every character has a particular font point size and an associated number of pixels. Therefore the actual character width is known and the character width plus the space between characters can be calculated. Based on the magnification/reduction amount set by a user a new width is calculated with a new associated number of pixels. The same number of characters must then be magnified/reduced in order to fit into the new width as calculated. Therefore the font point size is increased/decreased in order to fit all the detected characters into the newly defined width. Thus, Tanioka selects a point size of a font based on a size of a region of the character image in the magnified image data.

Therefore, the rejection of claims 1-8, as cited in the previous Office Action, is maintained and repeated in this Office Action

4.   Applicant's arguments with respect to claims 9-21 have been considered but are moot in view of the new ground(s) of rejection. Newly added claim 28 will be addressed below.

Claim Rejections - 35 USC § 103

5.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

6.   Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Miyaza (US 5825942) in view of Tanioka (USPN 2004/0114804).

Regarding claim 1, Miyaza discloses an image processor comprising a code

recognizer which recognizes character codes from characters in a character region in a

character image included in image data to be processed (see column 10 lines 42-48,

column 11 lines 10-20, column 12 lines 46-53, and column 13 lines 21-35), a size

recognizer which recognizes character size of the characters in the character image

(see column 10 lines 3-7 and column 12 lines 13-20 and 51-54), a setter which sets a

magnification (see column 8 lines 59-65, column 9 lines 5-8, and column 12 lines 39-

45), a magnification changer which enlarges or reduces the image data according to the

magnification set said setter (see column 10 lines 42-48, column 11 lines 5-9, column

21 lines 16-31, and column 43 lines 7-27), a memory section which stores a plurality of

font data of different sizes (see column 13 lines 38-51 and column 67 lines 63-65), a

selector which selects font data of a particular size from among the plurality of data

stored in said memory section, based on the character codes recognized by said code

recognizer, the font size recognized by said size recognizer, and the magnification set

by said setter (see column 13 lines 38-51, column 59 lines 40-44, column 60 lines 16-19

and 27-32, column 62 lines 10-12, column 65 lines 53-58, column 66 lines 8-29, column

67 lines 63-65, column 67 lines 36-46, and column 67 line 59-column 68 line 18), and

an output section which outputs the font data selected said selector (see Fig. 3, column

8 lines 46-57, column 64 lines 1-4, and column 68 lines 4-11 and 40-42).

Miyaza does not disclose expressly wherein the character size refers to the point

size of the character and a selector which selects font data of a particular size from

among the plurality of data stored in said memory section, based on a size of a region

of the character image in the enlarged or reduced image data.

Tanioka discloses detecting point sizes of characters read in from an image

reader, determining font size and type and storing information in memory for later

retrieval used in character magnification and a selector which selects font data of a

particular size from among the plurality of data stored in said memory section, based on

the character codes recognized by said code recognizer, the font size recognized by

said size recognizer, the magnification set by said setter, and a size of a region of the

character image in the enlarged or reduced image data (see Figs. 2 and 3, paragraph

[0024] lines 6-12, and paragraphs [0025], [0027]-[0029], and [0032]-[0034]).

Regarding claims 7 and 8, Miyaza discloses an image processing method and

recordable medium storing a program comprising the steps of recognizing character

codes from characters in a character region in a character image included in an image

data to be processed (see column 10 lines 42-48, column 11 lines 10-20, column 12

lines 46-53, and column 13 lines 21-35), recognizing character size of the character

image (see column 10 lines 3-7 and column 12 lines 13-20 and 51-54), setting a

magnification (see column 8 lines 59-65, column 9 lines 5-8, column 10 lines 42-48,

column 11 lines 5-9, column 12 lines 39-45, column 21 lines 16-31, and column 43 lines 7-27), selecting font data of a particular size from among a plurality of font data of different sizes, based on the recognized character codes, the recognized font sizes, and the set magnification (see column 13 lines 38-51, column 59 lines 40-44, column 60 lines 16-19 and 27-32, column 62 lines 10-12, column 65 lines 53-58, column 66 lines 8-29, column 67 lines 63-65, column 67 lines 36-46, and column 67 line 59-column 68 line 18), and outputting the selected font data (see Fig. 3, column 8 lines 46-57, column 64 lines 1-4, and column 68 lines 4-11 and 40-42).

Miyaza does not disclose expressly wherein the character size refers to the point size of the character and a selector which selects font data of a particular size from among the plurality of data stored in said memory section, based on a size of a region of the character image in the magnified or un-magnified image data.

Tanioka discloses detecting point sizes of characters read in from an image reader, determining font size and type and storing information in memory for later retrieval used in character magnification and selecting font data of a particular size from among a plurality of font data of different sizes, based on the recognized character codes, the recognized font sizes, the set magnification, and a size of a region of the character image in the magnified or un-magnified image data (see Figs. 2 and 3, paragraph [0024] lines 6-12, and paragraphs [0025], [0027]-[0029], and [0032]-[0034]).

Miyaza & Tanioka are combinable because they are from the same field of endeavor, manipulation (magnification or reduction) of character size for image reproduction.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the detection and utilization of point sizes of characters based on a region of a character image to accurately reproduce an image that has been manipulated (magnified or reduced), as described by Tanioka, with the system of Miyaza.

The suggestion/motivation for doing so would have been to accurately reproduce characters included in an image at variable powers (scaling up or down in accordance with a size of copy paper) (see paragraphs [0004]-[0008] of Tanioka).

Therefore, it would have been obvious to combine Tanioka with Miyaza to obtain the invention as specified in claims 1, 7, and 8.

Regarding claim 2, Miyaza further discloses a reading section which reads a document image to provide the image data to be processed (see column 7 lines 49-50).

Regarding claim 3, Miyaza further discloses an image-forming section which forms an image on a recording medium based on the font data outputted by said output section (see Fig. 3, column 8 lines 46-57, and column 64 lines 1-4).

Regarding claim 5, Miyaza further discloses a size changer which changes the font size selected by said selector, based on the character size recognized by said size recognizer and the magnification set by said setter (see column 67 lines 36-46 and column 65 lines 14-62).

Regarding claim 6, Miyaza further discloses wherein said magnification changer enlarges or reduces the character image based on the magnification set by said setter

when font data in correspondence to the character code recognized by said code

recognizer is not stored in said memory section (see column 21 lines 16-31 and column

43 lines 7-27).

7.   Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Miyaza (US 5825942) in view of Ando (US 6243549).

Regarding claim 9, Miyaza discloses a region recognizer which recognizes

character regions and non-character regions of the image data of the N pages, wherein

the character regions and non-character regions exist in the image data in a

predetermined existing order (see column 11 lines 10-42), a code recognizer which

recognizes character codes from a character image (see column 10 lines 42-48, column

11 lines 10-20, column 12 lines 46-53, and column 13 lines 21-35), a memory section

which stores font data (see column 13 lines 38-51, column 59 lines 40-44, column 62

lines 10-12, and column 67 lines 63-65), a selector which selects font data based on the

character code recognized by said code recognizer (see column 13 lines 38-51, column

59 lines 40-44, column 60 lines 16-19 and 27-32, column 62 lines 10-12, column 65

lines 53-58, column 66 lines 8-29, column 67 lines 63-65, column 67 lines 36-46, and

column 67 line 59-column 68 line 18), a synthesizer which generates output images by

reconstructing a layout of the non-character image regions and the character regions

represented by the font data selected by said selector with keeping the predetermined

existing order (see column 11 line 49-column 12 line 8, the process of reproducing a

document inherently keeps the order of the image and character data intact), and an

output section which outputs the output image data generated by said synthesizer (see Fig. 3, column 8 lines 46-57, column 64 lines 1-4, and column 68 lines 4-11 and 40-42).

Miyaza does not disclose expressly an instruction section which instructs to output image data of N pages to be processed in M sheets of recording medium, wherein N and M are natural numbers and N is not equal to M.

Ando discloses an instruction section which instructs to output image data of N pages to be processed in M sheets of recording medium, wherein N and M are natural numbers and N is not equal to M (see Figs. 6B, 6D, and 7A, column 5 lines 12-14, column 6 lines 52-58, column 6 line 66-column 7 line 37, column 8 lines 48-52, and column 12 lines 15-46), a synthesizer which generates output image data by laying out the font data selected by said selector in the M sheets (see column 4 lines 40-42, column 5 lines 12-14, and column 12 lines 15-46), and an output section which outputs the output image data generated by said synthesizer (see column 3 lines 47-55).

Regarding claim 14, Miyaza discloses recognizing character regions and non-character regions of the image data of the N pages, wherein the character regions and non-character regions exist in the image data in a predetermined existing order (see column 11 lines 10-42), recognizing character code from a character image of each character region (see column 10 lines 42-48, column 11 lines 10-20, column 12 lines 46-53, and column 13 lines 21-35), selecting font data based on the recognized character codes (see column 13 lines 38-51, column 65 lines 53-58, column 66 lines 8-29, column 67 lines 36-46, and column 67 line 59-column 68 line 18), generating output image data in a layout by reconstructing a layout of the non-character image regions

and the character regions represented by the font data by using the selected font data

(see column 11 line 49-column 12 line 8), and outputting the generated output image

data (see Fig. 3, column 8 lines 46-57, column 64 lines 1-4, and column 68 lines 4-11

and 40-42).

Miyaza does not disclose expressly instructing to output image data of N pages

to be processed in M sheets of recording medium, wherein N and M are natural

numbers and N is not equal to M and generating an output image data in a layout of M

sheets by using the selected font data.

Ando discloses instructing to output image data of N pages to be processed in M

sheets of recording medium, wherein N and M are natural numbers and N is not equal

to M (see Figs. 6B, 6D, and 7A, column 5 lines 12-14, column 6 lines 52-58, column 6

line 66-column 7 line 37, column 8 lines 48-52, and column 12 lines 15-46), generating

an output image data in a layout of M sheets by using the selected font data (see

column 3 lines 47-55, column 4 lines 40-42, column 5 lines 12-14, column 6 line 66-

column 7 line 37, and column 12 lines 15-46), and outputting the generated output

image data (see column 3 lines 47-55).

Regarding claim 15, Miyaza discloses recognizing character regions and non-

character regions of the image data of the N pages, wherein the character regions and

non-character regions exist in the image data in a predetermined existing order (see

column 11 lines 10-42), recognizing character code from a character image of each

character region (see column 10 lines 42-48, column 11 lines 10-20, column 12 lines

46-53, and column 13 lines 21-35), selecting font data based on the recognized

character codes (see column 13 lines 38-51, column 65 lines 53-58, column 66 lines 8-29, column 67 lines 36-46, and column 67 line 59-column 68 line 18), generating output image data by reconstructing a layout of the non-character image regions and the character regions represented by the selected font data, with keeping the predetermined existing order (see column 11 line 49-column 12 line 8, the process of reproducing a document inherently keeps the order of the image and character data intact), and outputting the generated output image data (see Fig. 3, column 8 lines 46-57, column 64 lines 1-4, and column 68 lines 4-11 and 40-42).

Miyaza does not disclose expressly instructing to output image data of N pages to be processed in M sheets of recording medium, wherein N and M are natural numbers and N is not equal to M and generating an output image data in a layout of M sheets by using the selected font data.

Ando discloses instructing to output image data of N pages to be processed in M sheets of recording medium, wherein N and M are natural numbers and N is not equal to M (see Figs. 6B, 6D, and 7A, column 5 lines 12-14, column 6 lines 52-58, column 6 line 66-column 7 line 37, column 8 lines 48-52, and column 12 lines 15-46), generating an output image data in a layout of M sheets by using the selected font data (see column 3 lines 47-55, column 4 lines 40-42, column 5 lines 12-14, column 6 line 66-column 7 line 37, and column 12 lines 15-46), and outputting the generated output image data (see column 3 lines 47-55).

Miyaza & Ando are combinable because they are from the same field of endeavor, manipulation of documents using an image forming apparatus.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the outputting of image data of N pages in M sheets, as described by Ando, with the system of Miyaza.

The suggestion/motivation for doing so would have been to provide greater accuracy in forming a plurality of page images on one side of a sheet and a system in which only those documents which are in a readable condition will be reproduced (see column 13 lines 9-15 of Miyaza).

Therefore, it would have been obvious to combine Ando with Miyaza to obtain the invention as specified in claims 9 and 14-15.

Regarding claim 10, Miyaza further discloses wherein said memory section stores the plurality of font data of different sizes, further comprising a font size calculator which calculates a size of the font data to be selected by said selector so that the font data selected by said selector are included in a predetermined are in the M sheets (see column 65 lines 14-62 and column 67 lines 36-46).

Regarding claim 11, Ando further discloses a region size calculator which calculates a size of an output character region in the M sheets according to the character region (see column 6 line 66-column 7 line 37 and column 8 line 17-column 10 line 14) and Miyaza further discloses a discriminator which discriminates a character region in the image data to be processed (see column 12 lines 47-54) and a font size calculator which calculates a size of the font data to be selected by said selector so that

the font data selected by said selector are included in the output character region in the

M sheets (see column 65 lines 14-62 and column 67 lines 36-46).

Regarding claim 12, Ando further discloses wherein N is larger than M (see

column 5 lines 12-14, column 8 lines 48-52, and column 12 lines 15-46).

Regarding claim 13, Ando further discloses wherein N is an odd number (see

column 6 lines 52-58, reference teaches that N can be any number of pages therefore N

can be an odd number and is analogous to the claim).

8.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ando

(US 6243549) in view of Miyaza (US 5825942).

Ando discloses an image processor comprising: an instruction section which

instructs to output image data of N pages to be re-arranged in M sheet(s) of recording

medium, wherein N and M are natural numbers and N is not equal to M (see Figs. 6B,

6D, and 7A, column 5 lines 12-14, column 6 lines 52-58, column 6 line 66-column 7 line

37, column 8 lines 48-52, and column 12 lines 15-46), a setter which sets at least one

magnification based the N pages, and the instruction from the instruction section (see

column 4 lines 63-65, column 5 lines 6-14, and column 6 line 66-column 7 line 37), and

a synthesizer which generated output image data by laying out the images on the M

sheet(s) with the at least one magnification set by the setter (see column 4 lines 40-42,

column 5 lines 12-14, and column 12 lines 15-46).

Ando does not disclose expressly a setter which sets at least one magnification based on areas of images on the N pages, and the instruction from the instruction section.

Miyaza discloses a setter which sets at least one magnification based on areas of images on the N pages, and the instruction from the instruction section (see column 8 lines 59-65, column 9 lines 5-8, column 10 lines 42-48, column 11 lines 5-9, column 12 lines 39-45, column 21 lines 16-31, and column 43 lines 7-27).

Ando & Miyaza are combinable because they are from the same field of endeavor, manipulation of documents using an image forming apparatus.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the character recognizer, magnifier, and correction system of Miyaza, with the system of Ando.

The suggestion/motivation for doing so would have been to accurately reproduce characters included in an image at variable powers (scaling up or down in accordance with a size of copy paper) and to provide a system in which only those documents which are in a readable condition will be printed (see column 13 lines 9-15 of Miyaza).

Therefore, it would have been obvious to combine Miyaza with Ando to obtain the invention as specified in claim 28.

9.   Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaza and Tanioka as applied to claims 1, 7, and 8 above, and further in view of IBM

Technical Disclosure Bulletin entitled "Image Adjustment Using Optical Character

Recognition". A copy of the above document has been attached to this Office Action.

Tanioka discloses wherein the recognizing of point size of the characters in the

character image is done by recognizing a font point size of the characters in a line in the

character image, calculating the width of the line of characters based on the width of

recognized font point size (see paragraphs [0026]-[0034]).

Miyaza and Tanioka do not disclose expressly measuring the actual width of the

line of characters, comparing the calculated width to the actual width, and correcting the

recognized point size according to the ratio of the calculated width to the actual width.

The IBM Technical Disclosure Bulletin discloses calculating the width of the line

of characters based on the width of recognized font point size, measuring the actual

width of the line of characters, comparing the calculated width to the actual width, and

correcting the recognized point size according to the ratio of the calculated width to the

actual width (see entire document).

Miyaza, Tanioka, & IBM Technical Disclosure Bulletin are combinable because

they are from the same field of endeavor, adjusting character size of character image

data.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the process of calculating whether a need for adjusting

character size (i.e. width and/o height) exists after performing an optical character

recognition process, as described by the IBM Technical Disclosure Bulletin, with the

system of Miyaza and Tanioka.

The suggestion/motivation for doing so would have been to accurately reproduce characters included in an image and to provide a system in which only those documents which are in a readable condition will be printed (see column 13 lines 9-15 of Miyaza).

Therefore, it would have been obvious to combine IBM Technical Disclosure Bulletin with Miyaza and Tanioka to obtain the invention as specified in claims 16-18.

10.   Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaza and Ando as applied to claims 9, 14, and 15 above, and further in view of Tanioka and IBM Technical Disclosure Bulletin.

Tanioka discloses wherein the recognizing of point size of the characters in the character image is done by recognizing a font point size of the characters in a line in the character image, calculating the width of the line of characters based on the width of recognized font point size (see paragraphs [0026]-[0034]).

Miyaza, Ando, and Tanioka do not disclose expressly measuring the actual width of the line of characters, comparing the calculated width to the actual width, and correcting the recognized point size according to the ratio of the calculated width to the actual width.

The IBM Technical Disclosure Bulletin discloses calculating the width of the line of characters based on the width of recognized font point size, measuring the actual width of the line of characters, comparing the calculated width to the actual width, and correcting the recognized point size according to the ratio of the calculated width to the actual width (see entire document).

Miyaza, Ando, Tanioka, & IBM Technical Disclosure Bulletin are combinable because they are from the same field of endeavor, manipulation of image data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the process of calculating whether a need for adjusting character size (i.e. width and/o height) exists after performing an optical character recognition process, as described by the IBM Technical Disclosure Bulletin, and the detection and utilization of point sizes of characters to accurately reproduce an image that has been manipulated (magnified or reduced), as described by Tanioka, with the system of Miyaza and Ando.

The suggestion/motivation for doing so would have been to accurately reproduce characters included in an image and to provide a system in which only those documents which are in a readable condition will be printed (see column 13 lines 9-15 of Miyaza).

Therefore, it would have been obvious to combine Tanioka and IBM Technical Disclosure Bulletin with Miyaza and Ando to obtain the invention as specified in claims 19-21.

11.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaza and Tanioka as applied to claim 1 above, and further in view of Flowers Jr. (US 5533174).

Miyaza and Tanioka do not disclose expressly a communication section which communicates with an external apparatus, wherein said selector selects the compatible

font data from among a plurality of font data stored in the external apparatus via the

communication section.

Flowers discloses a communication section which communicates with an

external apparatus, wherein said selector selects the compatible font data from among

a plurality of font data stored in the external apparatus via the communication section

(see Figs. 1 and 2, column 4 lines 9-13 and 22-36, column 5 lines 6-16, and column 12

lines 3-21).

Miyaza, Tanioka, & Flowers are combinable because they are from the same

field of endeavor, matching character fonts for subsequent printing.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the external font server of Flowers with the system of Miyaza

and Tanioka.

The suggestion/motivation for doing so would have been to eliminate the need

for the client to devote storage space to character fonts and to increase processing time

(see column 4 lines 22-27 and column 13 lines 5-8 of Flowers).

Therefore, it would have been obvious to combine Flowers with Miyaza Tanioka

to obtain the invention as specified in claim 4.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. To further show the state of the art please refer to the attached

Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625
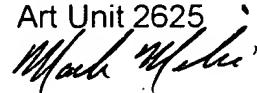
MRM

TWYLER LAMB
SUPERVISORY PATENT EXAMINER